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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,048	08/22/2003	Marcia D. Kennedy	03234.0022U1	1560

23859 7590 01/11/2006  
NEEDLE & ROSENBERG, P.C.  
SUITE 1000  
999 PEACHTREE STREET  
ATLANTA, GA 30309-3915

EXAMINER
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STADLER, REBECCA M

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/647,048	<b>Applicant(s)</b> KENNEDY ET AL.	
	<b>Examiner</b> Rebecca M. Stadler	<b>Art Unit</b> 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 39-50 is/are pending in the application.
- 4a) Of the above claim(s) 23-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 39-50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/22/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

Claims 22-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction requirement in the reply filed on 12/21/2005.

Applicant's election with traverse of the restriction in the reply filed on 12/21/2005 is acknowledged. The traversal is on the ground(s) that there is no burden of search. This is not found persuasive because a burden of search exists based on the different classes and subclasses of the two groups. The search for the carbon black product is not the same as that for the carbon black process.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 39-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Omae 6,358,487.

Omae '487 discloses a carbon black having a DBP value of 215 cc/100 g and a corresponding particle size of 19 nm (see column 71, table 11, example 33).

Omae '487 also discloses that the carbon black may be dispersed in an aqueous medium (see column 27, lines 24-36).

***Claim Rejections - 35 USC § 102/103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10, 12-21 and 39-44 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Omae '487.

Omae discloses that the preferable particle size is less than 13 nm and that the  $DBP/D_{mod}$  ratio is 3.6, wherein the  $D_{mod}$  value is up to 80 (see column 9, lines 33-54). 80 times 3.6 gives a DBP value of 288 cc/100 g. As such, it appears that some of the carbon blacks of Omae would meet the limitations of the present claims. Insofar as this is not the case, it would

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have been obvious to optimize the carbon blacks of Omae. See, e.g., In re Boesch, 617 F.2d 272, 205 U.S. P.Q. 215 (CCPA 1980).

As to claims 12-21 and 39-44, the carbon black composition can be used as an ink (see column 27, lines 24-36).

Claims 1-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Eisenmenger 4,366,138.

Eisenmenger '138 discloses an oxidized carbon black with primary particle sizes of an average diameter of 16 to 18 nm and an oil adsorption of 430 to 560 g/100 g (see Abstract). Although the oil adsorption of Eisenmenger is in different units and is not a DBP oil adsorption no difference is seen because the oil adsorption of Eisenmenger is so high that it is expected to have a DBP value of greater than 180 cc/100 g thereby meeting this limitation. A carbon black with an average particle size of 13 nm is also disclosed (see column 8, example 2a, line 9).

Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to the applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. See e.g., In re Best, 562 F.2d 1252, 195 U.S.P.Q. 430 (CCPA 1977).

As to claims 11 and 22, the carbon black of Eisenmenger '138 inherently possess the same amount of oxygen because the carbon black of Eisenmenger is oxidized.

The carbon black of Eisenmenger can be used as a pigment in high jet black lacquers, (see abstract), thereby meeting claim 12.

### ***Claim Rejections - 35 USC § 103***

Claims 1, 11, 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenmenger '138 in view of Dotson 6,471,933.

Insofar as Eisenmenger does not inherently possess the same oxygen content as that of the present invention, Dotson 6,471,933 does disclose a carbon black having an oxygen content of preferably between 5.5% and 9.5% (see column 4, lines 32-37). As discussed in Eisenmenger column 2, lines 6-27, it would have been obvious to add more oxygen to the carbon black in order to make the carbon black easier to ~~be dispersed or~~ solubilize.

Claims 1, 11, 12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omae '487 in view of Eisenmenger '138 in further view of Dotson 6,471,933.

Omae '487 does not possess the same oxygen content as that of the present invention, Dotson 6,471,933 does disclose a carbon black having an oxygen content of preferably between 5.5% and 9.5% (see column 4, lines 32-37). As discussed in Eisenmenger column 2, lines 6-27, it would have been obvious to add more oxygen to the carbon black in order to make the carbon black easier to ~~be dispersed or~~ solubilize.

Claims 1, 39, and 40-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omae 6,358,487 in view of Nguyen 6,645,287.

The rejection of claim 1 above is incorporated herein.

Omae '487 does not disclose an acrylic binder in the carbon black composition. However, Nguyen '287 does disclose a coating composition comprised of a carbon product and a liquid vehicle (see column 3, lines 12-14). Further, the composition can also comprise an acrylic binder (see column 3, lines 25-32). The carbon product can be carbon black (see column 3, lines 65-67). The liquid vehicle can be comprised of an aqueous vehicle (see column 3, lines 17-19). The Nguyen composition comprises a dispersant (see column 10, line 39 – column 11, line 37). Nguyen also discloses organic solvents (see column 3, lines 29-32). The composition can be used as an ink (see column 2, lines 43-51). It would have been obvious to use the acrylic binder, dispersant, and/or organic solvent of Nguyen in the aqueous carbon

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black composition of Omae in order to achieve the conditions and requirements of the final coating of the composition (see Nguyen '287, column 3, lines 22-23).

As to claims 45-50, it would have been obvious to choose whatever Hunter "b" value that gives the amount of blue tone desired (see column 9, line 64 – column 10, line 2). See, e.g., In re Boesch, 617 F.2d 272, 205 U.S. P.Q. 215 (CCPA 1980).

Claims 1 and 39-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eisenmenger '138 in view of Nguyen 6,645,287.

The rejection of claim 1 above is incorporated herein.

Eisenmenger '138 does not disclose an aqueous composition of carbon black. However, Nguyen '287 does disclose a coating composition comprised of a carbon product and a liquid vehicle (see column 3, lines 12-14). The carbon product can be carbon black (see column 3, lines 65-67). The liquid vehicle can be comprised of an aqueous vehicle (see column 3, lines 17-19). The Nguyen composition comprises a dispersant (see column 10, line 39 – column 11, line 37). The composition can also comprise an acrylic binder (see column 3, lines 25-32). Nguyen also discloses organic solvents (see column 3, lines 29-32). The composition can be used as an ink (see column 2, lines 43-51). It would have been obvious to use the carbon black of Eisenmenger in an aqueous composition as in Nguyen in order to achieve the conditions and requirements of the final coating of the composition (see Nguyen '287, column 3, lines 22-23).

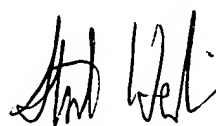
As to claims 45-50, it would have been obvious to choose whatever Hunter "b" value that gives the amount of blue tone desired (see column 9, line 64 – column 10, line 2). See, e.g., In re Boesch, 617 F.2d 272, 205 U.S. P.Q. 215 (CCPA 1980).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rebecca M. Stadler whose telephone number is 571-272-5956. The examiner can normally be reached on Normal.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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A handwritten signature in black ink, appearing to read "Stuart L. Hendrickson".

**STUART L. HENDRICKSON  
PRIMARY EXAMINER**